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dull green and the casts are ivory white, all of which contributes to a charmingly harmonious and artistic effect. Very near this building is the "State Normal Art School," and the pictures and decorations there are quite noteworthy.

This idea of school and public buildings properly decorated is as yet in its infancy; the ultimate point will be when our communities and municipal governments will see their way to have great mural stories of history and patriotism displayed upon the walls of their already palatial public buildings; when we shall have fine busts, bas-reliefs, and other memorials, the work of artists and painters, placed as permanent decorations, and as lessons, to the great army of "New America," as it marches forward in the future, toward a greater, grander, and more splendid commonwealth than the past has ever known.

"For genius is not as the lightless spheres
That move forever round one central sun
In changeless motion through unchanging years
And must always return whence they begun,
But as some splendid flame-enveloped star
Drawn inward from dusk outer-worlds afar,
Whose coming is foreseen of none."

"Michelangelo," by Rhys Carpenter,
The North American Review.

THE ARCHITECT AND THE ENGINEER*

BY CASS GILBERT

I BELIEVE that the relations between architects and engineers are, or ought to be, peculiarly close and that their interests are very, very similar, so similar that they are often associated in the public mind in such a fashion that unwittingly the interests of engineers overlap those of architects; and the interests of architects are sometimes placed a little too far in advance of those of engineers. A lack of understanding may create undesirable friction, but a full understanding creates a spirit of co-operation.

I think the engineers have, from my experience, a pretty hard time of it. They are usually on the firing line, and if they are not way "up in the air" they are way down in the bowels of the earth, or submerged somewhere, sort of "between the devil and the deep sea."

The engineers, speaking seriously, I fancy must have the same feeling that the architects have relative to their work; they have got to control the thing that is placed under their control and they have got to exercise a forceful control of it, hence there grows into the profession a feeling of authority and force, and that authority and force must be backed with real knowledge. Now the engineers have real knowledge, as I understand it, and deal with facts, with demonstrable things. The architects also deal with facts and with demonstrable things, and added to that with another phase of professional activity, namely, the development of beautiful things! But there are times when, in our business, we must stand on the firing line, when we must take the brunt of some serious situation, when we must meet structural emergencies with courage and with intelligence and with force; when we must control the situation. Those emergencies arise in the practice of nearly every man. It is, however, very much like the Texas sheriff that I recently heard of who had arrested men all over the State and gone through the most thrilling and hair-breadth experiences and escapes, but at the same time always brought the man in. Some fellow said: "Captain Bill, how is it you dare go into such desperate encounters and succeed in bringing your man?" "Well," said the sheriff (a man standing six feet four inches, and a dead shot), "you know I have got a theory that a man who is wrong and knows it can't stand up against a man who is right and keeps a comin'," and I give you that word because I think it is an admirable proposition, that a man who is wrong and knows it can't stand up against a man who is right and keeps a comin', and in that homely philosophy lies a great deal of the force of supervision and control, the kind of force of supervision and control which engineers have to exercise in their field work from day to day, and which we architects occasionally have to exercise.

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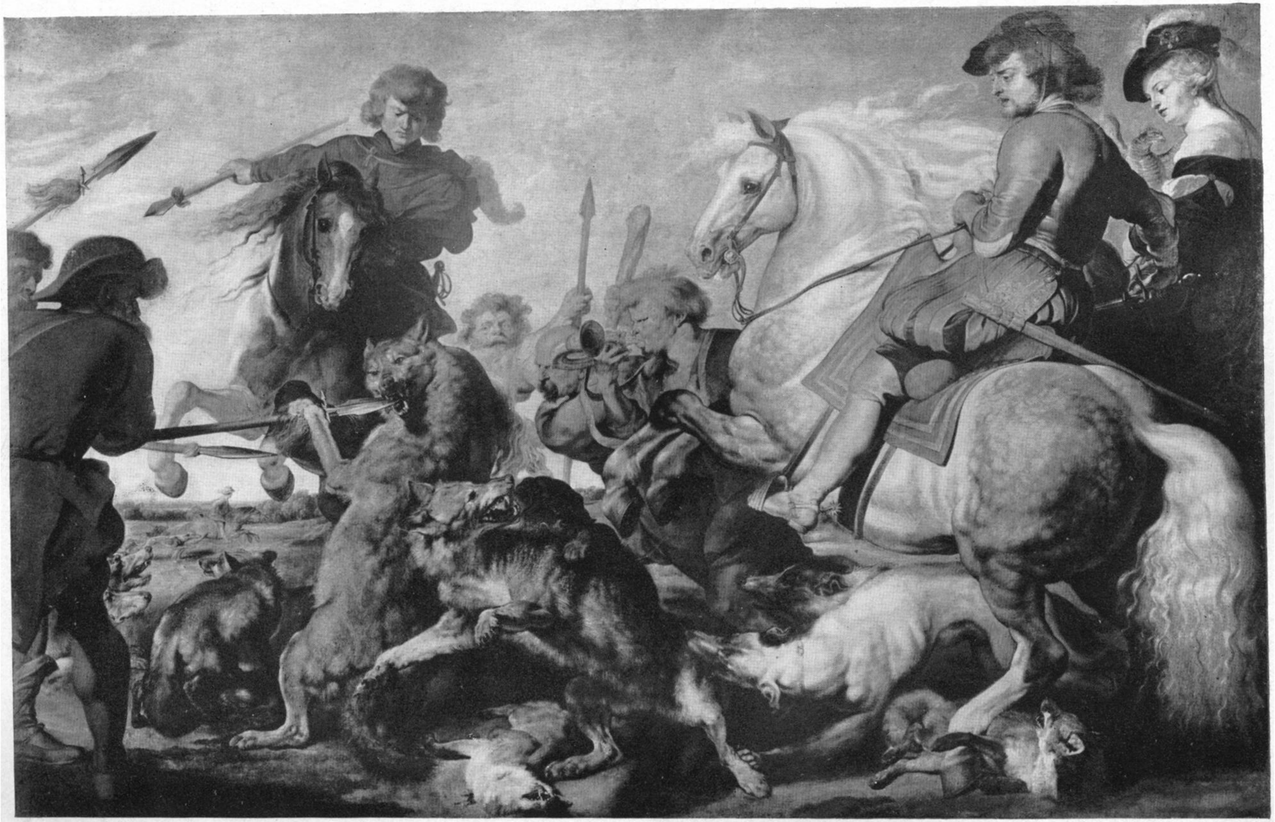
*Excerpts from an address delivered at the Engineers Banquet, held at the Plaza Hotel, New York, February 4th, 1910.

I think that there is a very common impression among engineers that architecture is a sort of fancy profession, that it deals with ornament alone, that it is a question of detail and design and a thing which, if omitted, would not seriously affect the building. Now, there is no more erroneous impression than that. The last thing that the real architect does is to consider any question of ornament. For him it is a question of organization of the plan and adaptability of the plan to the real need, to the exact use, to the precise conditions, to the economic and financial conditions that overlie the whole problem, after that is done to consider the material, and, by the way, right there, as has been well said, there are three elements to any building problem—cost, dimensions, and material. You can fix any two and the third fixes itself. You can fix the cost and the size and the material fixes itself, or you can fix the dimensions and material and the cost fixes itself, so that you have to meet those three great economic propositions of dimension, cost, and material, and when you have met the first great need of usage then you try to meet the question of cost and this paramount question of material, if that is paramount. This brings you into financial questions. No skyscraper is ever built twenty stories because you want it so, it is built because you have got to build twenty stories high in order to make an income on the land value, and the land value is fixed not by fanciful, imaginative sort of reasoning, but by the actual demands of commerce and by the real needs of the community, hence your skyscraper which is supposed to be an imaginative problem to some extent is the most practical economic proposition that is under the control of architects.

There was a time twenty years ago when if you built a railroad station you had to design a tower—always. At the present time if you build a state capitol you are expected to build a dome. That time will pass away. It is not so long ago I was asked to enter a competition to design a court house in which, to the surprise of everybody, the advisor of the board or commission exacted the requirement that this court house should have no dome, and it was received with enthusiasm by every architect in the competition. But after these practical questions are met there is another function which we all recognize, which you recognize, and that is that out of the practical thing shall grow something which will enrich the world and make it better worth living in; that it shall add the last final touch of human ingenuity, namely, a thing of beauty, a thing which lives and goes beyond into the real spirit of the ideal and that, if possible, makes the thing you use as beautiful as its use implies—you find that in nature, you find it in man, you find it everywhere you look; that the *ultimate* development of the most useful thing is the beauty of the thing itself, so it appeals to the spiritual side of your life. But do not, however, for a moment think that the architects of today are men who are engaged only in the millinery of construction, because to the real architects that is the very last thing they think of. The plan they make may express it in one form or another, but so long as it is really serious and genuine, their hearts are in it, and their hearts would not be in anything that is meretricious or superficial. So, when you come into counsel with your great boards of trustees, with the heads of departments of government, in the great enterprises of the building of bridges and canals and streets and city developments, location of buildings and all that sort of thing, do not feel that the architect is not in hearty sympathy with the aspirations of the engineer that the thing shall be primarily and essentially and genuinely adapted to its real purpose.

The engineer is also a creator of works of art. Few works of art are finer than the Pont de Gard in Southern France, or the aqueducts on the Roman Campagna and in Spain. Those were works of great masters, masters of construction, masters of design, and masters of design in its finest, and therefore in its most beautiful, form. There was a time in Florence in the best days, when Brunelleschi, the great architect of the dome of the cathedral, was also engineer of the water works of the city, and when Leonardo da Vinci, who painted "The Last Supper" in Milan, and was one of the greatest poets of his time, was engineer in charge of the fortifications of Florence which stood the sieges of the Middle Ages and were remarked for centuries as the finest examples of military engineering of the period in which they were constructed. Just before our own time we have the example of a great engineer, that is from our standpoint, a great engineer and a great planner of engineering works, in L'Enfant, who planned the city of Washington, and I believe also planned the city of Detroit. His work has lasted over one hundred years. He was selected on account of his engineering skill and he had to consider the complicated problem of locating a great national capital at a place geographically and topographically "impossible." L'Enfant designed his plan under the direction of General Washington. I won't go into his history, it is too well known. He was soon displaced for political reasons and died in poverty after years of haunting the halls of Congress to recover compensation which was justly due him and which had been promised by the nation. Scarcely a year ago his remains were dug up from a farm in Maryland, laid in state in the rotunda of the National Capitol and interred with military honors at Arlington. The plan of L'Enfant has been waiting for nearly one hundred years, yes, quite one hundred years, for it was in the year 1900 that the American Institute of Architects, of which I later had the honor to be president, took up the L'Enfant plan and the members of the Institute constituting themselves guardians of the plan of the National Capitol, through thick and thin have fought for it, stood for it and backed it up. The city plan of this engineer is superior to all other city plans of his time in this country and abroad. I do not know that it is realized that the plan of the city of Washington, made by Major L'Enfant, was the inspiration for the replanning of the city of Paris under Baron Haussmann. When we consider that over one hundred years ago all this great modern movement for civic development and civic improvement which we are now illustrating in the rehabilitation of the plan of Washington and in the planning of Cleveland and Chicago and San Francisco and St. Paul and Boston and New Haven and a great many other cities, all over the country, was all due to the influence of this French engineer resident in America, we take off our hats to him. His plan was great practically and great artistically, and the American Institute of Architects is proud of having had some part in its preservation.

Now, if the engineers can co-operate with the architects in great projects of that kind, following great ideals, together, we can render lasting service to our country and benefit mankind. For it is, after all, not a question of beauty alone —we feel that beauty is its own excuse for being—but of using the conveniences of modern life and adding to them.



THE WOLF AND FOX HUNT PETER PAUL RUBENS

COURTESY OF THE METROPOLITAN MUSEUM

A Recent Acquisition to the Permanent Collection of the Metropolitan Museum of Art